



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

August 7, 2000

4APT-ARB

Mr. John E. Hornback, Director
Division for Air Quality
Department for Environmental Protection
Natural Resources and Environmental
Protection Cabinet
803 Schenkel Lane
Frankfort, Kentucky 40601

SUBJ: EPA's Review of Proposed Title V Permit No. V-99-003
Gallatin Steel Company - Warsaw, Kentucky

Dear Mr. Hornback:

The purpose of this letter is to notify the Kentucky Department for Environmental Protection that the United States Environmental Protection Agency (EPA) formally objects to the issuance of the above referenced proposed title V operating permit for Gallatin Steel Company located in Warsaw, Kentucky, which was received by EPA, via e-mail notification on June 23, 2000. This letter also provides general comments on the proposed permit.

Pursuant to 40 C.F.R. §70.8(e), any title V permit issued to Gallatin Steel Company prior to EPA review and comment cannot be deemed a valid title V permit. Based on our review of the proposed permit, EPA formally objects, under the authority of Section 505(b) of the Clean Air Act (the Act) and 40 C.F.R. § 70.8(c), to the issuance of the title V permit for this facility. The basis of EPA's objection is that the permit does not fully meet the periodic monitoring requirements of 40 C.F.R. §70.6(a)(3)(i) and does not contain conditions that assure compliance with all applicable requirements (40 C.F.R. §70.6(a)). Furthermore, since the proposed permit contains significant changes from the initial draft permit, pursuant to 40 C.F.R. §70.8(h), adequate procedures for public notice and opportunity for public comment should be provided.

Section 505(b)(1) of the Act and Section 40 C.F.R. § 70.8(c) require EPA to object to the issuance of a proposed permit in writing within 45 days of receipt of the proposed permit (and all necessary supporting information) if EPA determines that the permit is not in compliance with the applicable requirements under the Act or 40 C.F.R. part 70. Pursuant to 40 C.F.R. § 70.8(c), a detailed explanation of the objection issues and the changes necessary to make the permit consistent with the requirements of 40 C.F.R. part 70 are provided in the attached enclosure. Section 70.8(c)(4) and Section 505(c) of the Act further provide that if the State fails to revise and resubmit a proposed permit within 90 days to satisfy the objection, the authority to issue or deny the permit passes to EPA and EPA will act accordingly. Because the objection issues must

be fully addressed within the 90 days, we suggest that the revised permit be submitted in advance in order that any outstanding issues may be addressed prior to the expiration of the 90-day period.

We are committed to working with you to resolve these issues. Please let us know if we may provide assistance to you and your staff. If you have any questions or wish to discuss this further, please contact Mr. Gregg Worley, Chief, Operating Source Section at (404) 562-9141. Should your staff need additional information they may contact Ms. Jenny Jachim, Kentucky Title V Contact, at (404) 562-9126, or Ms. Lynda Crum, Associate Regional Counsel, at (404) 562-9524.

Sincerely,

/S/ Winston A. Smith

Winston A. Smith
Director
Air, Pesticides & Toxics
Management Division

cc: Edd Frazier, P.E., Kentucky Department of Environmental Protection
Gallatin Steel Company, Warsaw, Kentucky

Enclosure

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Gallatin Steel Company
Warsaw, Kentucky
Permit no. V-99-003

EPA Objection Issues

1. **Periodic Monitoring - CO:** For Emission Units E1 and E2 (existing melt shop and new melt shop), the permit contains the following two conditions, which if satisfied, provide that no monitoring will be required for CO emissions:
 - (1) Condition 2.e. for both units, which allows the facility to stop collecting hourly continuous emission monitoring (CEM) concentration data for CO emissions if such data show those emissions to be less than or equal to 75 percent of the standard specified in the permit each day for two consecutive years.
 - (2) Condition 3.b. for Emission Unit E1 and condition 3.c. for Emission Unit E2, which allow the facility to stop conducting annual stack tests for CO emissions if data from such tests show those emissions to be less than or equal to 75 percent of the standard specified in the permit for two consecutive years.This monitoring approach will not provide a reasonable assurance that the units will continue to comply with the CO emission standard if both the CEM monitoring and stack testing are discontinued. If the criteria of item (1) above are met, it may be reasonable to discontinue CEM monitoring. However, to ensure these sources continue to operate in a manner consistent with operation while CEM data were being collected, the permit must require the facility to continue conducting annual stack testing under normal operating conditions. Alternatively, the facility could continue collecting the CEM data and discontinue stack testing.
2. **Periodic Monitoring - NO_x and CO:** For Emission Units E1 and E2, conditions 2.e. and 2.f. allow the facility to stop collecting hourly CEM concentration data for CO and NO_x emissions if such data show those emissions to be less than or equal to 75 percent of the standards specified in the permit each day for two consecutive years. However, while both of these conditions refer to the applicable hourly standards (400 lbs/hr and 102 lbs/hr, respectively), they do not refer to the production-based standards (2 lbs/ton and 0.51 lbs/ton, respectively) which also apply. Because meeting the hourly standards does not assure compliance with the production rate standards, these conditions must be revised so that the 75 percent threshold applies to both applicable standards.
3. **Periodic Monitoring - VOCs, Lead and SO₂:** For Emission Units E1 and E2, the permit does not contain monitoring sufficient to assure compliance with the VOC, lead, and SO₂ standards throughout the permit term.

VOCs. The permit Statement of Basis states that compliance with VOC emission limits will be demonstrated by controlling the condition of the scrap material processed. Condition 1.c. requires the source to operate using primarily high grade, low residual, pre-processed, inspected scrap, and condition 5.c. requires that records be kept on the amounts and types of scrap material used. Condition 4.d. requires the source to visually inspect all scrap charged into the EAF to assure compliance with the operating requirements. To be practicably enforceable, this condition must also state the frequency at which scrap inspections will be conducted (e.g., as received, per truck load, per charging bucket). In addition, although the Statement of Basis states that scrap will be observed during annual testing for comparison, the permit does not include this requirement. This condition should be added to the permit to assure consistency of the materials used during testing and normal operation.

Lead. The permit Statement of Basis also states that compliance with lead emission limits will be demonstrated by observing the scrap during the annual test for comparison. This condition should be added to the permit to assure consistency of the materials used during testing and normal operation.

SO₂. The proposed permit does not contain periodic monitoring to assure compliance with the SO₂ emission limits. Although condition 5.b. requires the permittee to keep records of the amounts of carbon charged per heat, the sulfur contents, and analyses, the permit does not state that any sulfur content analysis must be conducted. The permit must contain a monitoring requirement for the sulfur content of carbon charged and a frequency at which monitoring will be conducted.

Condition 1.d. specifies that charged carbon or any other carbon substitutes should not be added to the EAF if the sulfur content is greater than 0.65 percent by weight. Please provide us with supporting documentation (e.g., annual test results) showing that the 0.65 percent by weight limit is protective of the sulfur dioxide emission limits of 40 lbs/hr and 0.2 lb/ton of liquid steel and add supporting remarks to the Statement of Basis.

The permit is not clear on whether the sulfur analyses of the charged carbon will be conducted “as received” or “as fired.” To ensure compliance with condition 1.d., a condition should be added to the permit requiring the permittee to analyze the charged carbon as “as fired” whenever an “as received” analysis shows a sulfur content greater than 0.65 percent by weight. Also, a monitoring requirement should be added to the permit for the sulfur content of the “carbon substitutes” referred to in condition 1.d.

4. **Periodic Monitoring - Opacity:** For Emission Units E1 and E2, conditions 2.a. and 2.b. specify opacity limitations for several units at the facility. Condition 2.a.e. refers to a less than 6 percent opacity requirement from any opening in buildings attached to the meltshop caused by emissions from any EAF operation. However, condition 4.c. on pages 8 and 19 requires that the visible emission observations be made only from the baghouse exit and the meltshop exit having the highest opacity. The permit must be revised to clarify that daily opacity monitoring is required of the openings in buildings attached to the meltshop as well.

The proposed permit also does not contain periodic monitoring to assure compliance with the 20 percent opacity limit stated in condition 2.b. Either periodic monitoring must be added to the permit to assure compliance with this standard or the Statement of Basis must state why additional monitoring is not necessary.

5. **Schedule of Compliance:** The EPA filed a civil judicial complaint against the Gallatin Steel Company in February 1999 for prior Clean Air Act violations and anticipates amending that complaint to include violations cited in a January 27, 2000, Notice of Violation (NOV). Therefore, the permit must include a schedule of compliance in accordance with 40 C.F.R. 70.6(c)(3). In addition, EPA and Gallatin have been engaged in settlement negotiations. If the permit is issued prior to completion of these negotiations, any compliance schedule included may have to be revised.
6. **Applicable Requirement - Fugitive Dust Emissions From Trucks:** As stated in EPA's review comments on the draft title V permit for Gallatin Steel submitted via e-mail on April 13, 1999, Kentucky Regulation 401 KAR 63:010, Section 3(d), requires the beds of open-bodied trucks be covered when transporting materials likely to become airborne. If Gallatin desires to use flatbed trailers carrying furnace parts covered in refractory dust, the permit must contain a requirement consistent with this regulation requiring the trucks to be covered to prevent fugitive particulate emissions.

General Comments:

7. **Monitoring Frequency:** For Emission Unit T1 (cooling towers), condition 4 states that the permittee shall monitor the total dissolved solids concentration or conductivity in the cooling towers monthly. The information we have does not indicate how variable the concentration of dissolved solids or the conductivity of the water are. We recommend that the requirement to monitor total dissolved

solids concentration or conductivity in the cooling tower water be monitored more frequently (e.g., weekly) until the variability is assessed.

8. **BACT Analysis - Baghouse Dust:** For Emission Units E1 and E2, condition 1.b. allows the introduction of baghouse dust into the melt furnace. It appears that this condition was added to the permit after BACT for this source had been determined. A statement should be added to this condition or the Statement of Basis to clarify that the additional emissions resulting from the burning of the baghouse dust was considered in the BACT analysis.
9. **Clarification of Terms:** For Emission Units E1 and E2, conditions 1.c. and 4.d. require the permittee use only scrap materials of a certain quality and to visually inspect all scrap charged into the EAF. Because these conditions are relied upon to assure compliance with the VOC and lead standards, the permit should more clearly define what is meant by “high grade, low residual, preprocessed, inspected scrap” in condition 1.c. Another steel mill permit issued by your Department states “that a visual inspection shall be conducted of all scrap charged into the electric arc furnace to ensure only clean scrap is used. The scrap shall be free of foreign materials such as oil and greases and shall not contain materials likely to have excess organic material.” A statement similar to this should be added to the Gallatin permit to more clearly define the terms used in condition 1.c.
10. **Recordkeeping:** For Emission Unit BL (barge terminal facilities), condition 4 states that monthly operational status inspections of affected facilities and dust suppression equipment shall be performed. However, the permit does not require that records of the inspections be kept. To provide reasonable assurance that the dust suppression equipment is working properly, records of the status inspections should be maintained. This comment applies to other units at the facility as well.
11. **Monitoring Requirement:** For Emission Units E1 and E2, condition 2.f. should contain a time frame by which the source would be required to resume collection of hourly CEM data should an annual performance test show NO_x emissions greater than 75 percent of the standard.